WHAT IS CLAIMED IS:

1.   A power supply device for supplying electric power to an electrical circuit, the power supply device comprising:

a power source;

a voltage comparator connected to the power source for comparing a voltage of the power source with a predetermined reference voltage and for outputting a control signal when the power source voltage is higher than the reference voltage; and

a protecting switch disposed in a circuit between the power source and the electrical circuit, the protecting switch being turned off when the control signal is supplied from the voltage comparator to the protecting switch, thereby protecting the electrical circuit from overvoltage.

2.   The power supply device as in claim 1, further comprising a voltage booster for boosting the power source voltage to a predetermined voltage level, the voltage booster being disposed in a circuit connecting the power source and the electrical circuit.

3.   The power supply device as in claim 2, wherein:

the protecting switch is disposed between the power source and the voltage booster.

4.   The power supply device as in claim 2, wherein:

the protecting switch is disposed in the voltage booster.

5. The power supply device as in claim 2, wherein:

the protecting switch is disposed between the voltage booster and the electrical circuit.

6. The power supply device as in claim 4, wherein:

the voltage booster comprises a booster coil, a booster switch for switching current flowing through the booster coil at a high speed, and a rectifying diode for allowing current to flow only in one direction from the booster coil to the electrical circuit; and

the protecting switch also functions as the rectifying diode.

7. An airbag system for use in an automotive vehicle, the airbag system having an airbag to be inflated with gas upon detection of a collision and an igniting circuit for igniting a device for generating the gas, wherein electrical power is supplied from the power supply device defined in claim 1 to the igniting circuit.